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EXAMINER

ANDRISH, SEAN D

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,239	<b>Applicant(s)</b> EUSTERBARKEY, CARSTEN	
	<b>Examiner</b> SEAN D. ANDRISH	<b>Art Unit</b> 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 6, 8 - 12, 15, 18 - 22, 24 - 26, and 29 - 32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 6, 8 - 12, 15, 18 - 22, 24 - 26, and 29 - 32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 - 6, 8 - 12, 15, 18 - 22, 24 - 26, and 29 - 32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly-added claim limitation "the relative arrangement of the pile element and the reinforcement element being maintained during the whole service time of the foundation" lacks basis in the original disclosure and, thus, represents new matter.

### ***Claim Objections***

3. Claim 18 is objected to because of the following informalities: Claim 18 depends on cancelled claim 17. For purposes of examination, claim 18 has been interpreted as being dependent on claim 1, as best understood by the examiner. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1, 4, 6, 8 - 12, 15, 18, 20 - 22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by DeWitt (4,992,002).

Regarding claims 1, 4, 6, 15, 18, and 20 - 22, DeWitt discloses a foundation comprising: an elongate pile element (hollow elongate mandrel 10); a reinforcement member (sheath 40) surrounding the elongate pile element (10); a gap (annulus between mandrel 10 and sheath 40) is filled with cement; a junction piece (annular attachment ring 42) connects the pile- like device to a construction (collar assembly 45) located on top of the pile-like device (Figs. 2 and 3; column 3, lines 31 - 44; column 4, lines 3 - 10). Examiner notes that the bolted flange (42) of DeWitt is functionally equivalent to a screw flange. Although DeWitt is silent regarding the transmission of bending moments, the bolted connection (bolt 48) between the junction piece (45) and pile-like device inherently allows for the transmission of bending moments. Although the bolt will fail if enough force were applied thereto, the bolt would transmit horizontal forces up until the point at which the bolt breaks. Applicant's figures do not clearly illustrate how bending moments may be transmitted from the construction to the pile-like device, so the bolt of DeWitt meets the claim limitations as best understood by the examiner. Applicant argues that the mandrel 10 and the sheath 40 of DeWitt move relative to each other during the formation of the piling and both are completely removed after the formation of the piling and, thus, do not meet the claim requirements. Examiner replies that even if the mandrel 10 moves relative to the sheath 40, the mandrel 10 is always positioned within the sheath 40 and, thus, meets the claim limitations. The claims do not preclude relative movement between the mandrel 10 and the sheath 40.

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Regarding claims 8, 9, 11, and 12, DeWitt further discloses means for increasing transfer of shear is fins (vanes 38) between the elements and the filling material (Fig. 2).

Regarding claim 10, De Witt further discloses teaches annular accumulations of grout applied to the tubes (Fig. 3; column 5, lines 40 - 48). The grout positioned between the inner and outer tubes is considered the means for increasing transfer of shear.

Regarding claim 24, DeWitt further discloses a driving head (28) (Fig. 1; column 3, line 50).

6. Claims 1, 6, 8 - 12, 15, 18, 20 - 22, 24, and 29 - 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Gray (415,037).

Regarding claims 1, 6, 15, 18, and 20 - 22, Gray (415,037) teaches an elongate pile element (2); a reinforcement element (1); a gap between the elongate pile element and the reinforcement element, said gap at least partially filled with free-flowing material; a construction (unlabeled feature positioned on top of cap (9)); and a junction piece (cap 9, keys 7, bolts 8, collar 4, and flange 3) (Figs. 1 - 5; page 1, lines 31 - 51 and lines 65 - 70). The junction piece includes fins (keys 7). Although the keys and the collar are temporarily removed (page 1, lines 66 - 70), element 2 is maintained in a position in which element 2 is surrounded by element 1. Therefore, the apparatus as taught by Gray meets the claim limitations, including the newly- added claim limitation(s) that represent new matter.

Regarding claims 8, 9, 11, and 12, Gray further discloses means for increasing the transfer of shear (keys 7) between the elements (2, 1) and the filling material (Fig. 5).

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Regarding claim 10, Gray further discloses annular accumulations of material (asphaltum, concrete, or any other suitable solidifying material) applied to the pile element and the reinforcement element tubes (Fig. 5; page 1, lines 65 - 70).

Regarding claim 24, Gray further discloses wherein at least one of the two elements is introduced into the ground by means of a ramming method and/or a drilling method (auger 10) (Fig. 2; page 1, lines 52 - 56).

Regarding claim 29, Gray further discloses the junction piece (keys 7) extends into the gap between the reinforcement element (1) and the pile element (2) (Fig. 5).

Regarding claims 30 and 31, Gray further discloses the connection between the junction piece and the pile like device is a concrete bond (Fig. 5; page 1, lines 65 - 70). Examiner notes that since concrete fills the gap between the reinforcement element and the pile element, and the concrete is in contact with the reinforcement element, the pile element, and the junction piece (key 7), the concrete forms a bond between the junction piece, the reinforcement element, and the pile element.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 - 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray.

Regarding claims 2 - 4, Gray discloses all of the limitations of the above claim(s) except for the reinforcement element has a greater length than the pile element. The optimization of

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proportions in a prior art device is a design consideration within the skill of the art. *In re Reese*, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

Regarding claim 5, Gray discloses all of the limitations of the above claim(s) except for more than two pile-like devices. Duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeWitt. DeWitt discloses all of the limitations of the above claim(s) except for more than two pile-like devices. Duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

10. Claims 19, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeWitt in view of Haynes (4,257,721). DeWitt discloses all of the limitations of the above claim(s) except for an offshore construction. Haynes teaches placing piles in deep ocean environments (column 1, lines 51 - 54). It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by DeWitt with the offshore construction of Haynes to improve the versatility and expand the range of applications of the foundation.

11. Claims 19, 25, 26, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Haynes (4,257,721).

Regarding claims 19, 25, and 26, Gray discloses all of the limitations of the above claim(s) except for an offshore construction. Haynes teaches placing piles in deep ocean environments (column 1, lines 51 - 54). It would have been considered obvious to one of

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ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Gray with the offshore construction of Haynes to improve the versatility and expand the range of applications of the foundation.

Regarding claim 32, Gray further discloses the connection between the junction piece and the pile like device is a concrete bond (Fig. 5; page 1, lines 65 - 70). Examiner notes that since concrete fills the gap between the reinforcement element and the pile element, and the concrete is in contact with the reinforcement element, the pile element, and the junction piece (key 7), the concrete forms a bond between the junction piece, the reinforcement element, and the pile element.

### ***Response to Arguments***

12. Applicant's arguments with respect to claims 1 - 6, 8 - 12, 15, 18 - 22, 24 - 26, and 29 - 32 have been considered but are moot in view of the new ground(s) of rejection.

13. Applicant's arguments filed 17 December 2009 have been fully considered but they are not persuasive.

Applicant argues that the mandrel 10 and the sheath 40 of DeWitt move relative to each other during the formation of the piling and both are completely removed after the formation of the piling and, thus, do not meet the claim requirements. Examiner replies that even if the mandrel 10 moves relative to the sheath 40, the mandrel 10 is always positioned within the sheath 40 and, thus, meets the claim limitations. The claims do not preclude relative movement between the mandrel 10 and the sheath 40.



***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN D. ANDRISH whose telephone number is (571)270-3098. The examiner can normally be reached on Mon - Fri, 7:30am - 5:00pm, Alternate Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Kreck/  
Primary Examiner, Art Unit 3672

SDA  
2/22/2010